REMARKS

This paper is submitted in reply to the Office Action dated April 4, 2005, within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,138,251 to Murphy et al.

Applicant respectfully traverses the Examiner's rejections to the extent that they are maintained. Applicant has amended claims 1, 14, 22-23 and 25. Applicant respectfully submits that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed.

As an initial matter, Applicant wishes to thank the Examiner for the consideration extended in the telephonic interview conducted between the Examiner and Applicant's representative on June 23, 2005. In the interview, proposed amendments to the claims were discussed, as well as the Examiner's bases for rejection on several of the dependent claims.

Now turning to the subject Office Action, and specifically to the rejection of independent claim 1, this claim as amended recites a method of determining a status of a peer protocol initiated on a plurality of members of a group in a clustered computer system. The method includes locally tracking protocol progress information for a peer protocol within each of a plurality of members collectively managed as a group by a clustered computer system, wherein the peer protocol is of the type wherein each member of the group receives a message associated with the peer protocol and returns an acknowledgment in association with locally processing the peer protocol, and responding to a query directed to a selected member of the group by providing the protocol progress information locally tracked by the selected member, wherein the query comprises a request for the protocol progress information.

In the interview, the Examiner appeared to acknowledge the distinctions between Applicant's invention, which focuses on obtaining status information regarding a peer protocol being executed on a clustered computer system, and Murphy, which is directed to object reference management between a server and multiple clients. However, the Examiner suggested that Applicant makes more explicit the various clustering-related features of Applicant's invention.

In this regard, with respect to claim 1, Applicant has amended the claim to make explicit what was previously implicit in the claim, and clarify that the plurality of members are <u>collectively managed as a group by a clustered computer system</u>, and that the recited protocol progress information is for a <u>peer protocol of the type wherein each member of the group receives a message associated with the peer protocol and returns an acknowledgment in association with locally processing the peer protocol</u>. "Groups" are well known entities utilized in clustered computer systems, which are characterized by the concept of collective management. Within clustering environments, membership in a clustering group distinguishes group members from arbitrarily selected sets of entities that happen to interact with one another.

The Examiner apparently relies on col. 3, lines 32-36 and col. 4, lines 50-55 of Murphy for allegedly disclosing determining the status of a peer protocol via local tracking of protocol progress information within each member of a group, relying specifically on the teaching in Murphy of a client tracking protocol progress when downloading an object using an object reference. However, it is clear from these passages, and from elsewhere in Murphy, that the tracking of object references in clients and servers in Murphy does not disclose or suggest the concept of tracking the progress of a <u>peer protocol</u>, which has been defined in the claim as being a type where each member of a group receives as message associated with the proto col as returns an acknowledgment in association with locally processing the protocol. Nor does Murphy

disclose or suggest any progress tracking be performed by each member of a group that is collectively managed by a clustered computer system.

Instead, Murphy discloses an object reference tracking system between individual clients and servers in a clustered computer system. The clients and servers, however, are not collectively managed as a group. Moreover, the tracking of object reference counts occurs via specific interaction between a server and individual clients (rather than the server and all clients), to the extent to some clients are incapable of tracking operations occurring on other clients. One aspect of the invention recited in claim 1 is that each member of a group locally tracks the progress of a protocol initiated on the plurality of members, a feature that is not disclosed in Murphy.

In addition, the object reference tracking of Murphy does not conform to the recited definition of a "peer protocol," where members of a group receive a message associated with a protocol and sends an acknowledgment in connection with locally processing the protocol. In fact, the only operation in Murphy that appears to incorporate more than simple point-to-point messages between two nodes is illustrated in Fig. 2D, and described in cols. 6 and 7, and not even this operation incorporates a message received by each member of a group along with an acknowledgment from each member, as required by claim 1.

The Examiner also suggested in the interview that Applicant clarify the nature of the recited query for protocol progress information. In this regard, claim 1 has also been amended to clarify that the recited query comprises a request for the protocol progress information.

In rejecting claim 1, the Examiner cites col. 6, line 54 to col. 7, line 20 of Murphy, where reference counts are transmitted between nodes. Of note, however, none of these transmissions are "requests for protocol progress information." The only transmissions that occur are xdoor requests, which are requests for object references, INC and DEC messages, which request another node to increment or decrement their own object

reference counts, and ACK messages, which acknowledge INC and DEC messages. At no time does a node in Murphy receive a request for protocol progress information.

Furthermore, as Applicant has previously noted, claim 1 requires that protocol progress information be provided in response to a query. None of the messages described in the cited passages of Murphy transmit information about the progress of a protocol. Indeed, INC and DEC messages are commands to increment or decrement reference counts, but it does not appear that the counts themselves are ever transmitted.

Applicant therefore respectfully submits that claim 1 is novel over Murphy, and the rejection of claim 1 should be withdrawn. Moreover, given that Murphy additionally fails to suggest the aforementioned features of claim 1, Applicant submits that claim 1 is also non-obvious over Murphy. Reconsideration and allowance of claim 1, as well as of claims 2-13 which depend therefrom, are therefore respectfully requested.

Next with respect to the rejections of independent claims 14, 22 and 23, each of these claims has been amended in a similar manner to claim 1, to clarify that the plurality of members are collectively managed as a group by a clustered computer system, that the recited protocol progress information is for a peer protocol of the type wherein each member of the group receives a message associated with the peer protocol and returns an acknowledgment in association with locally processing the peer protocol, and that the recited query comprises a request for the protocol progress information. As discussed above in connection with claim 1, these additional features are not disclosed or suggested by Murphy. When combined with the other features recited in each of these respective claims, Applicant submits that each such claim is novel and non-obvious over Murphy. Reconsideration and allowance of claims 14, 22 and 23, and of claims 15-21 and 24 which depend therefrom, are therefore respectfully requested.

Next with respect the rejection of independent claim 25, this claim as amended recites an apparatus that includes a memory, and a program, resident in the memory. The program is configured to monitor for receipt of a query message that requests protocol

status information by a member among a plurality of members that are collectively managed as a group by a clustered computer system while a current protocol for the member is waiting on a resource, the program further configured to output protocol status information in response to receipt of the query message. Thus, as with claim 1, claim 25 has been amend to clarify that the recited query requests protocol progress information, and that the plurality of members are collectively managed as a group by a clustered computer system.

As noted above in connection with claim 1, neither of these additional features is disclosed or suggested by Murphy. Furthermore, it should be noted that claim 25 additionally recites the concept of outputting protocol status information in response to receipt of a query message requesting such information, combined with monitoring for receipt of the query while waiting on a resource. The Examiner cites col. 6, line 54 to col. 7, line 20 of Murphy, however, as noted above, this passage fails to disclose any transmission of information that could be analogized to protocol status information. Instead, the passage discloses the transmission of xdoor messages, which request object references, INC and DEC messages, which are merely commands to increment or decrement reference counts, and ACK messages, which acknowledge receipt of INC and DEC messages. Moreover, there is nothing in the passage that addresses the concept of monitoring for receipt of a query while waiting on a resource.

As such, Applicant submits that claim 25 is novel and non-obvious over Murphy. Reconsideration and allowance of independent claim 25, as well as of claim 26 which depends therefrom, are therefore respectfully requested.
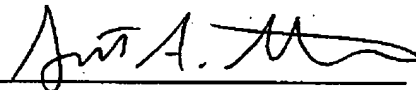
As a final matter, Applicant traverses the Examiner's rejections of the dependent claims based upon their dependency on the aforementioned independent claims. However, Applicant notes that a number of these claims recite additional features that are not disclosed or suggested by Murphy, for example, the concepts of acknowledgment rounds (claims 3, 4 and 16), waiting on a protocol (claims 6 and 17), waiting on a peer

protocol (claims 7 and 18), waiting on a local protocol (claims 8 and 19), tracking information in a member for each other member (claims 13 and 21) and tracking information in a member for all other members (claims 12). Reconsideration and allowance of these claims are therefore respectfully requested.

In summary, Applicant respectfully submits that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

_____ I JULY 2005 _____

Date

Scott A. Stinebruner
Reg. No. 38,323
WOOD, HERRON & EVANS, L.L.P.
2700 Carew Tower
441 Vine Street
Cincinnati, Ohio 45202
Telephone: (513) 241-2324.
Facsimile: (513) 241-6234